AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (cancelled)

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (currently amended) ~~The system of claim 1 wherein~~ A system for accumulating and evaluating electromagnetic phenomena of multiple power quality categories of a power distribution system, comprising a circuit monitor coupled to said power distribution system and accumulating data representing said electromagnetic phenomena, said circuit monitor being programmed to determine a power quality index for each of said multiple power quality categories, and a single overall power quality index for all of said power quality categories, said power quality indices for power quality categories involving steady state conditions ~~are~~ being based on the percentage of time said conditions exist during an evaluation period and the severity of such conditions, and said power quality indices for power quality categories involving abnormal events ~~are~~ being based on the number of such events that occur during an evaluation period and the severity of such events.

9. (cancelled)

10. (currently amended) ~~The system of claim 9 wherein~~ A system for accumulating and evaluating electromagnetic phenomena of multiple power quality categories of a power distribution system, comprising a circuit monitor coupled to said power distribution system and accumulating data representing said electromagnetic phenomena, said circuit monitor being programmed to determine a power quality index for each of said multiple power quality categories, and a single overall power quality index for all of said power quality categories that is a weighted average of said power quality indices for said power quality categories, said weighted average ~~is~~ being based on the nature of the power distribution facility and the load types in said facility.

11. (currently amended) The system of claim ~~1~~ 8 wherein said single overall power quality index for all of said power quality categories is the lowest of said power quality indices for said power quality categories.

12. (cancelled)

13. (cancelled)

14. (currently amended) The system of claim ~~1~~ 8 wherein said power quality indices for power quality categories are based at least in part on data collected from networked circuit monitors ~~that include branch circuit monitors~~.

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (cancelled)

23. (cancelled)

24. (currently amended) The system of claim ~~17~~ 14 wherein said networked circuit monitors include branch circuit monitors. ~~said power quality indices for power quality categories involving steady state conditions are based on the percentage of time said conditions exist during an evaluation period and the severity of such conditions, and said power quality indices for power quality categories involving abnormal events are based on the number of such events that occur during an evaluation period and the severity of such events.~~

25. (cancelled)

26. (currently amended) The system of claim ~~8~~ 10 wherein said weighted average is based on the nature of the power distribution facility and the load types in said facility.

27. (currently amended) The system of claim ~~8~~ 10 wherein said single overall power quality index for all of said power quality categories is the lowest of said power quality indices for said power quality categories.

28. (cancelled)

29. (cancelled)

30. (currently amended) The system of claim ~~8~~ 10 wherein said power quality indices for power quality categories are based at least in part on data collected from networked circuit monitors that include branch circuit monitors.

31. (cancelled)

32. (cancelled)

33. (cancelled)

34. (cancelled)

35. (cancelled)

36. (cancelled).

37. (cancelled)

38. (cancelled)

39. (cancelled)

40. (cancelled)

41. (currently amended) ~~The system of claim 39 wherein~~ A method of accumulating and evaluating data representing electromagnetic phenomena of multiple power quality categories of a power distribution system, comprising

determining an individual power quality index for each of said multiple power quality categories, and

determining an overall power quality index for all of said individual power quality indices, weighting said at least one power quality category according to the load type present, said power quality indices for power quality categories involving steady state conditions ~~are~~ being based on the percentage of time said conditions exist during an evaluation period and the severity of such conditions, and said power quality indices for power quality categories involving abnormal events ~~are~~ being based on the number of such events that occur during an evaluation period and the severity of such events.

42. (cancelled)

43. (currently amended) ~~The system of claim 42 wherein~~ A method of accumulating and evaluating data representing electromagnetic phenomena of multiple power quality categories of a power distribution system, comprising

determining an individual power quality index for each of said multiple power quality categories, and

determining an overall power quality index for all of said individual power quality indices that is a weighted average of said power quality indices for said power quality categories, said weighted average being ~~is~~ based on the nature of the power distribution facility and the load types in said facility.

44. (currently amended) The ~~system~~ method of claim ~~39~~ 41 wherein said single overall power quality index for all of said power quality categories is the lowest of said power quality indices for said power quality categories.

45. (cancelled)

46. (cancelled)

47. (currently amended) The ~~system~~ method of claim ~~39~~ 41 wherein said power quality indices for power quality categories are based at least in part on data collected from networked circuit monitors ~~that include branch circuit monitors~~.

48. (cancelled)

49. (cancelled)

50. (cancelled)

51. (cancelled)

52. (cancelled)

53. (cancelled)

54. (cancelled)

55. (cancelled)

56. (cancelled)

57. (currently amended) The method of claim ~~50~~ 41 wherein said power distribution system comprises a system of networked circuit monitors, wherein each of said circuit monitors accumulates data representing said electromagnetic phenomena, and is programmed to determine said power quality index for each of said multiple power quality categories, and said single overall power quality index for all of said power quality categories.~~, said power quality indices for power quality categories involving steady state conditions are based on the percentage of time said conditions exist during an evaluation period and the severity of such conditions, and said power quality indices for power quality categories involving abnormal events are based on the number of such events that occur during an evaluation period and the severity of such events.~~

58. (cancelled)

59. (currently amended) The method of claim ~~58~~ 43 wherein said weighted average is based on the nature of the power distribution facility and the load types in said facility.

60. (currently amended) The method of claim ~~50~~ 43 wherein said single overall power quality index for all of said power quality categories is the lowest of said power quality indices for said power quality categories.

61. (cancelled)

62. (cancelled)

63. (currently amended) The system of claim ~~50~~ 43 wherein said power quality indices for power quality categories are based at least in part on data collected from networked circuit monitors that include branch circuit monitors.

64. (cancelled)

65. (cancelled)

66. (cancelled)